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1-18

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Previously Presented) An antibody or fragment thereof which is reactive with HIV-1 neutralizing antibody 2F5 (ECACC Accession No. 90091704) and which inhibits or prevents the HIV-1 neutralization activity of antibody 2F5 and/or the binding of antibody 2F5 to gp41 of HIV-1, wherein the antibody or fragment thereof is free from an amino acid sequence ELDKWA (SEQ ID NO: 1) of the core epitope of antibody 2F5, and from any equivalent variant or homologue of said core epitope selected from the group consisting of SEQ ID NO: 2 to SEQ ID NO: 12.

Antibody Ab

→ ELDKWA^N
ELDKWA

2. (Original) The antibody or fragment thereof according to claim 1, which inhibits or prevents binding of antibody 2F5 to proteins or peptides that comprise the amino acid sequence SEQ ID NO. 1 ELDKWA or equivalent variant or homologue thereof, preferably selected from the group consisting of SEQ ID NO: 2 to SEQ ID NO: 12.

3. (Previously Presented) The antibody or fragment thereof according to claim 1, which upon administration to a mammal elicits Ab3-type antibodies that have HIV-1 neutralizing activity, and/or that competes with antibody 2F5 for binding to proteins or peptides that comprise the amino acid sequence SEQ ID NO. 1 (ELDKWA) or an equivalent variant or homologue thereof, (preferably selected) from the group consisting of SEQ ID NO: 2 to SEQ ID NO: 12.

→ 12R2

4. (Previously Presented) The antibody or fragment thereof according to claim 1, wherein the antibody is an Ab2-type antibody which is anti-idiotypic to antibody 2F5.

* SPACERS ONLY ? SPACERS Ab2 ~ Ab3 ???
6

5. (Previously Presented) The antibody or fragment thereof according to claim 1, wherein the antibody is monoclonal and is produced by hybridoma cell line 3H6 (ECACC Acc. No. 01100279).

6. (Currently Amended) The antibody or fragment thereof according to claim 1, wherein the antibody has a heavy chain variable region according to SEQ ID NO: 43 14 and/or light chain variable region according to SEQ ID NO: 44 15.

7. (Previously Presented) The antibody or fragment thereof according to claim 1, in the form of either a chimeric mouse/ human antibody or fragment thereof, or a humanized version of a mouse antibody.

8. (Previously Presented) The antibody or fragment thereof according to claim 1, which is associated, ^{112R2} (preferably) coupled, linked, or fused, with an immunoactive molecule, more preferably with a molecule that increases or intensifies a B cell response, and ^{112R2} (most preferably) with a cytokine such as interleukin-4 (IL-4) or interleukin-15 (IL-15). _{112R2}

9. (Previously Presented) The antibody or fragment thereof according to claim 1, for use as a screening tool or a diagnostic or therapeutic agent.

10. (Previously Presented) A hybridoma cell line producing an antibody according to claim 1.

11. (Original) The hybridoma cell line according to claim 10, which is cell line 3H6 (deposited at PHLS, Porton Down, Salisbury, UK, under ECACC Acc. No. 01100279).

12. (Previously Presented) Use of an antibody or fragment thereof defined in claim 1, for the manufacture of a pharmaceutical composition, particularly a vaccine, for prophylactic or therapeutic application against HIV-1 infection.

13. (Previously Presented) A pharmaceutical composition, particularly a vaccine, comprising an antibody or antibody fragment defined in claim 1, and a pharmaceutically acceptable carrier.

14. (Previously Presented) A mixture, particularly a pharmaceutical composition or a vaccine, comprising at least one Ab2 anti-idiotypic antibody or fragment thereof as defined in any one of claim 1, in combination with at least one fusion protein.

15. (Previously Presented) An Ab3-type antibody or fragment thereof which is reactive with an antibody or antibody fragment according to claim 1 and which competes with antibody 2F5 for binding to gp451 of HIV1 or to proteins or peptides that comprise the amino acid sequence SEQ ID NO. 1 (ELDKWA) or an equivalent variant or homologue thereof, preferably selected from the group consisting of SEQ ID NO: 2 to SEQ ID NO: 12.

16. (Original) The Ab3-type antibody or fragment according to claim 15 which neutralizes HIV-1.

17. (Previously Presented) The Ab3-type antibody or fragment thereof according to claim 15 for use as a screening tool or a diagnostic or therapeutic agent.

18. (Previously Presented) A pharmaceutical composition comprising an Ab3-type antibody or antibody fragment according to claim 15, and a pharmaceutically acceptable carrier.